T and B Lymphocytes in Patients with Endometriosis

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Autoimmune phenomenon have previously been described in patients with pelvic endometriosis. Anti-endometrial antibodies have been observed, as well as increased numbers of macrophages and lymphocytes in the peritoneal fluid. These findings may suggest a cell-mediated immune response. To explore this concept, the present study quantitated T and B lymphocytes and T lymphocyte subsets in the peritoneal fluid and peripheral blood of patients with endometriosis. These results were compared to those in a control group of patients with no evidence of endometriosis. The results demonstrated increased numbers of T and B cells in the peritoneal fluid and peripheral blood of patients with endometriosis (peritoneal fluid = $30 \pm 5\%$ T, $27 \pm 6\%$ B; peripheral blood = $40 \pm 10\%$ T, $22 \pm 6\%$ B) as compared to controls (peritoneal fluid = $22 \pm 5\%$ T, $14 \pm 3\%$ B, peripheral blood = $27 \pm 7\%$ T, $11 \pm 3\%$ B). Furthermore, the T4/T8 ratio was significantly increased in patients with endometriosis (peritoneal fluid 2.71 ± 1.23 vs control 1.69 ± 0.74 ; peripheral blood 2.20 ± 0.89 vs control 1.54 ± 0.58). We suggest that the presence of increased T and B lymphocytes in patients with endometriosis lends support to the concept of a cell-mediated autoimmune reactions in some patients.

Morphologic Evaluation of Pelvic Endometriosis

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There are three important reasons for the morphological assessment of peritoneal microbiopsies in patients revealing endometriosis at laparoscopy.

First, the peritoneal, or ovarian, biopsy should contain endometrial-like glands and stroma, thus confirming the laparoscopic diagnosis. False-positives may include only hemorrhaged and/or pigmented tissues.

Second, as has been suggested by Schweppe et al. [Eur. J. Obstet. Gynec. reprod. Biol., 17: 173, 1984], the cellular differentiation of the endometriotic implants and their morphologic comparison with the development of the eutopic endometrium may be of predictive value for the therapeutic outcome. Thus, well-differentiated endometriotic implants which are in phase with the eutopic endometrium should respond to hormones during treatment.

Third, the morphologic evaluation of peritoneal microbiopsies obtained from

endometriotic lesions at the end of medical therapy usually presents a good correlation with the pregnancy rate and thus reflects the therapeutic effect of medical therapy. However, two important questions on the pathophysiology of endometriosis - i.e. What are minimal endometriotic implants and what is the natural evolution of these implants? - were hardly studied. The present contribution will add some new data and may help to answer both questions in the near future.